

c) maintaining said T lymphocyte under conditions conducive to cytotoxic T lymphocyte proliferation, thereby producing said cytotoxic T lymphocyte that is cytotoxic for a cell that presents said antigen of said pathogen, and

ii) administering to said patient a therapeutically effective amount of said cytotoxic T lymphocyte.

REMARKS

Reconsideration of this application and entry of the foregoing amendments are respectfully requested.

The claims have been revised to define the invention with additional clarity. The claims as presented are fully supported by an enabling disclosure (claim 54 finds support throughout the application, including in claims 13 and 18-20 as originally filed. Claims 55-58, which depend from claim 54, correspond to original claims 21-24. Claim 59 finds support, for example, in claims 33 and 41-43 as originally filed).

Claims 1-8, 13 and 25-32 stand rejected as allegedly representing obviousness-type double patenting over claims 1-17 of USP 5,853,719. Withdrawal of the rejection is in order in view of the Terminal Disclaimer submitted herewith.

Claims 19 and 42 stand rejected under 35 USC 101. Withdrawal of the rejection is in order in view of the above-noted claim revisions of these claims. Reconsideration is requested.

Claims 20-24 and 43 stand rejected under 35 USC 102(b) over Hellstrom et al and under 35 USC 102(e) over Kubo et al and Srivastava et al. The rejections are traversed in view of the above-noted claim revisions. None of the citations teaches the invention as now claimed. Reconsideration is thus requested.

Claims 14-17, 20-24 and 43 stand rejected under 35 USC 112, first paragraph, as allegedly being non-enabled. The claims as now presented do not make reference to preventing. Accordingly, reconsideration is requested.

Claims 1-53 stand rejected under 35 USC 112, second paragraph, as allegedly being indefinite. The above-noted revisions are believed to address the Examiner's concerns. Thus, reconsideration is requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version With Markings To Show Changes Made."

This application is submitted to be in condition for allowance and a Notice to that effect is requested.

Respectfully submitted,

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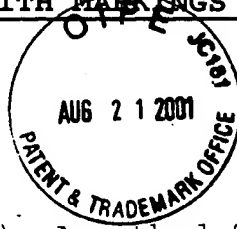
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:



1. (Amended) A method for producing an RNA-loaded antigen presenting cell (APC) that presents on its surface a tumor antigenic epitope encoded by [tumor-derived] RNA of a tumor, wherein the epitope induces T cell proliferation, said method comprising:

introducing into an antigen-presenting cell *in vitro* [tumor-derived] RNA of a tumor comprising tumor-specific RNA that encodes an antigen that induces T cell proliferation and tumor immunity, thereby producing an RNA-loaded APC that presents on its surface a tumor antigenic epitope encoded by the [tumor-derived] RNA of the tumor, wherein the epitope induces T cell proliferation.

6. (Amended) The method of claim 1, wherein said RNA [is tumor-derived RNA that] comprises poly A⁺ RNA.

7. (Amended) The method of claim 1, wherein said RNA [is tumor-derived RNA that] comprises cytoplasmic RNA.

9. (Amended) The method of claim 1, wherein said RNA [is tumor-derived RNA that] is provided as a

fractionated tumor extract that is fractionated with respect to a non-RNA component of the tumor extract.

14. (Amended) The method for treating [or preventing] a tumor [formation] in a patient, said method comprising

administering to the patient a therapeutically effective amount of the RNA-loaded APC of claim 13.

15. (Amended) The method of claim 14, wherein the [tumor-derived] RNA is [derived] obtained from said patient.

16. (Amended) The method of claim 1, wherein the [tumor-derived] RNA is [derived] obtained from fixed tissue.

17. (Amended) The method of claim 14, wherein the [tumor-derived] RNA is [derived] obtained from a donor patient.

19. (Amended) [A] An isolated CTL produced by the method of claim 18.

25. (Amended) The method of claim 1, wherein the [tumor-derived] RNA is [derived] obtained from a melanoma.

26. (Amended) The method of claim 1, wherein the [tumor-derived] RNA is [derived] obtained from a bladder tumor.

27. (Amended) The method of claim 1, wherein the [tumor-derived] RNA is [derived] obtained from a tumor selected from the group consisting of a breast cancer tumor [tumors], a colon cancer tumor [tumors], a prostate cancer tumor [tumors], and an ovarian cancer tumor [tumors].

30. (Amended) The method of claim 1, wherein said RNA [is tumor-derived RNA that] comprises nuclear RNA.

33. (Amended) A method for producing an RNA-loaded antigen presenting cell (APC) that presents on its surface a pathogen antigenic epitope encoded by the RNA, wherein the epitope induces T cell proliferation, said method comprising:

introducing into an antigen-presenting cell in vitro [pathogen-derived] RNA of a pathogen consisting essentially of RNA encoding a pathogen antigen that induces T cell

proliferation and an immune response to the pathogen, thereby producing an RNA-loaded APC that presents on its surface a pathogen antigenic epitope encoded by the RNA, wherein the epitope induces T cell proliferation.

36. (Amended) The method of claim 33, wherein said RNA [is tumor-derived RNA that] comprises poly A⁺ RNA.

37. (Amended) The method of claim 33, wherein said [pathogen-derived] RNA is [derived] obtained from a virus.

39. (Amended) The method of claim 33, wherein said [pathogen-derived] RNA is [derived] obtained from a bacterium.

41. (Amended) A method for producing a cytotoxic T lymphocyte (CTL) that is cytotoxic for a cell which presents a pathogen antigen, said method comprising:

providing a T lymphocyte;

contacting said T lymphocyte *in vitro* with the RNA-loaded APC of claim 33; and

maintaining said T lymphocyte under conditions conducive to CTL proliferation, thereby producing a CTL

that is cytotoxic for a cell which presents a [tumor]
pathogen antigen.

42. (Amended) [A] An isolated CTL produced by the
method of claim 41.

44. (Amended) The method of claim 18, wherein the
[tumor-derived] RNA comprises at least 80% of polyA+ RNA
naturally present in a tumor cell.

51. (Amended) A method for detecting an increase in
tumor-specific or pathogen-specific CTL in a patient, the
method comprising:

i) contacting a first sample of T lymphocyte from
the patient *in vitro* with RNA-loaded APCs that present a
cell-surface tumor or pathogen antigenic epitope encoded by
the RNA, thereby producing a first expanded sample of T
lymphocytes;

ii) administering to the patient [a therapeutically
effective amount of] the RNA-loaded APCs that present a
cell-surface tumor or pathogen antigenic epitope encoded by
RNA;

iii) subsequent to the administering step, contacting
a second sample of T lymphocytes from the patient *in vitro*

with RNA-loaded APCs that present a cell-surface tumor or pathogen antigenic epitope encoded by the RNA, thereby producing a second expanded sample of T lymphocytes;

iv) comparing sensitization of the first expanded sample of T lymphocytes with sensitization of the second expanded sample of T lymphocytes, wherein an increased level of sensitization in the second sample, as compared with the first sample, is an indicator of an increase in tumor-specific or pathogen-specific CTL.

53. (Amended) The method of claim 1, wherein the [tumor-derived] RNA is [derived] obtained from frozen tissue.